

REMARKS

No claims have been amended. Claims 1-17, 19-35, 37-47, and 49-79 remain in the application for consideration. In view of the following amendments and remarks, Applicant respectfully solicits allowance of the application and furtherance onto issuance.

§ 112 Rejections

Claims 2, 20, 38-39, 55, 58, 61, and 65-66 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Office argues the following:

. . . the claims require a limitation that allow a data structure to specify whether the entity intended to process the data structure must understand the data structure. While the specification makes reference to a “mustUnderstand” flag, this flag is not used to specify if a data structure must be understood by an entity. Rather, this flag indicates whether the entity must obey the semantics of the data structure, and if it cannot, it fails to process the message. Therefore, if the “mustUnderstand” flag is disabled, the entity that is intended to process the data structure does not have to obey the semantics of the data structure.

If the claims are to be interpreted as an entity actually understanding the data structure, the examiner invites the applicant to point out where in the specification this is disclosed. Furthermore, the examiner wonders why an entity that *is* intended to process the data structure must be told it has to understand the data structure. What is the point of specifying an entity to process a data structure if it does not need to understand it? [emphasis in original]

In response, Applicant traverses these rejections and respectfully draws the Office’s attention to the specification at page 16, lines 22-25, reproduced below [emphasis added]:

At 109 [of Fig. 3], the destination entity determines whether the header has a mandatory attribute and if so, *whether it is understood*. If the mandatory header is not understood, then it returns a fault response at 110. Otherwise, the process continues to block 111.

As shown by the specification excerpt above, if the header has a mandatory attribute (of which a “mustUnderstand” flag is but one example), the destination entity must understand the mandatory header (or else return a fault response). Other portions of the specification providing further information regarding mandatory attributes are reproduced below [emphasis added]:

Mandatory Attribute

A mandatory attribute indicates whether a header entry in the header data is mandatory or optional for the recipient to process. The mandatory attribute is also called a “mustUnderstand” attribute. The recipient of a header entry is typically specified by an actor attribute (which is discussed below). *Page 17, lines 12-16.*

In the exemplary message exchanger, use of a mandatory attribute allows for robust evolution. Elements tagged with the mandatory attribute with a value of “1” are presumed to somehow modify the semantics of their parent or peer elements. Tagging elements in this manner assures that this change in semantics will not be silently (and, presumably, erroneously) ignored by those entities that may not *fully understand* it. *Page 18, lines 1-6.*

A header entry is either successfully understood and processed by an entity or it is not. In the later case, it is an error only if the header entry has the “mandatory” attribute set to “1”, in which case a “mustUnderstand” fault-response is sent to the originating entity. *Page 21, lines 10-13.*

Fault Message

If an intermediate entity for which it is the actor (i.e., an “actor” entity) does not *understand* a mandatory element of a message or if a receiving entity encounters a problem in processing the message (or its requested task), then the receiving entity sends a response message that includes an error indication. This is called a “fault message.” *Page 22, lines 1-6.*

1 Applicant respectfully submits that the subject matter of all claims is
2 sufficiently enabled to one skilled in the art and therefore the rejected claims are
3 allowable. Furthermore, in response to the Office's question about the point in
4 using a mandatory attribute, the Office's attention is specifically drawn to page 18,
5 lines 1-6, reproduced above, for an explanation.

6
7 **§ 102 Rejections**

8 Claims 1, 7, 19, 37, 49-54, 64, and 71 stand rejected under 35 U.S.C §
9 102(e), as being anticipated by U.S. Patent No. 6,389,455 to Fuisz (hereinafter
10 "Fuisz").

11
12 **§ 103 Rejections**

13 Claims 2, 20, 38, 55, 58, 61, and 68 stand rejected under 35 U.S.C § 103(a),
14 as being unpatentable over Fuisz in view of U.S. Patent Application No.
15 2002/0010665 to Lefebvre (hereinafter "Lefebvre").

16 Claims 56-57, 59-60, and 62-63 stand rejected under 35 U.S.C § 103(a), as
17 being unpatentable over Fuisz in view of Lefebvre and U.S. Patent No. 6,167,448
18 to Hemphill (hereinafter "Hemphill").

19 Claims 4, 6, 8, 22, 24, 25, 42, 44, 45, 68, 70, and 72 stand rejected under 35
20 U.S.C § 103(a), as being unpatentable over Fuisz.

21 Claims 3, 5, 9-10, 14-17, 21, 23, 27-28, 32-35, 41, 43, 46-47, 67, 69, 73-74,
22 and 78-79 stand rejected under 35 U.S.C § 103(a), as being unpatentable over
23 Fuisz in view of Connolly (Hypertext Markup Language – 2.0) and Hemphill.

24 Claims 11-13, 29-31, and 75-77 stand rejected under 35 U.S.C § 103(a), as
25 being unpatentable over Fuisz in view of Hemphill.

1 Claim 40 stands rejected under 35 U.S.C § 103(a), as being unpatentable
2 over Fuisz in view of Postel (TCP).

3 Claim 66 stands rejected under 35 U.S.C § 103(a), as being unpatentable
4 over Fuisz in view of Lefebvre and U.S. Patent No. 5,838,720 to Morelli
5 (hereinafter "Morelli").

6
7 **Claims 1-17**

8 **Claim 1** recites a method of formatting a message for exchange between
9 entities on a network, the method comprising:

- 10
- generating a message envelope;
 - generating contents of the message envelope, the contents comprising data structures, *each data structure identifies which entity is intended to process the data structure when that entity receives the message envelope over the network.*
- 13

14 In making out the rejection of this claim, the Office argues the following:

15 Fuisz teaches that the header of the email messages is acted upon by
16 all mail transfer agents and the bounce hub. These entities have no
17 need to interact with the body of the email message. Furthermore, it
18 is well known in the art that a machine that is the ultimate recipient
19 of that email generally processes the body of the email in order to
20 display it. Fuisz teaches a fine distinction between the header and the
21 body of an email message, indicating that they are set apart by a null
22 line (col. 4, line 64 – col. 5, line 10). This provides the mail transfer
23 agents and the bounce hub with an indication of where the header
24 they need to process ends. Since the header of the email is passed by
25 the bounce system for re-addressing (col. 5, lines 29-34), the bounce
system ensures all emails are routed through the bounce hub (col. 5,
lines 35-48), and the header is updated by every mail transfer agent,
the header, by virtue of its format, inherently specifies all of these
entities as entities intended to process the header. Similarly, by
virtue of the body format (it being set apart from the header by a null
line), none of these entities are required to process the body, and

1 therefore the body inherently indicates the ultimate recipient as the
2 entity intended to process the body.

3 Applicant disagrees with the Office's argument for several reasons.

4 While Applicant agrees that the header is updated by the mail transfer
5 agents, Applicant respectfully submits that Fuisz' headers do *not* identify
6 (inherently or otherwise) which entity is intended to *process the header* when that
7 entity *receives* the message envelope over the network. During a SMTP
8 transaction, the receiver-SMTP responds to the sender-SMTP's commands via the
9 two-way transmission channel that the sender-SMTP has established. The
10 receiver-SMTP processes the commands it receives from the sender-SMTP – it
11 does not *process the header*. Nor does the header identify which entity is *intended*
12 *to process* the header.

13 Furthermore, Applicant respectfully disagrees with the Office's assertion
14 that the body of an e-mail "inherently indicates the ultimate recipient as the entity
15 intended to process the body." The body of an e-mail message does not *identify*
16 (inherently or otherwise) which entity is *intended to process* the body of the e-
17 mail message when it receives the message envelope over the network. The body
18 of an e-mail message normally contains text or other data intended for the
19 recipient of the message. However, the e-mail body itself does not even specify
20 who the recipient is, let alone what entity is intended to *process* the body.

21 Accordingly, for at least these reasons, this claim is allowable.

22 **Claims 2-17** ultimately depend upon independent claim 1. As discussed
23 above, claim 1 is allowable.

24 In addition to its own merits, each of these dependent claims is allowable
25 for the same reasons that its base claim is allowable. Applicant requests that the

1 Office withdraw the rejection of each of these dependent claims because its base
2 claim is allowable.

3
4 **Claims 19-35**

5 **Claim 19** recites a method of delivering a message over a network, the
6 method comprising:

- 7
- 8 • transmitting a message envelope of a message from an origin entity
to a destination entity via one or more intermediate entities on the
network;
 - 9 • the message envelope having contents comprising data structures,
10 *each data structure identifies which entity is intended to process
the data structure when that entity receives the message envelope
over the network.*
- 11

12 In making out the rejection of this claim, the Office makes the same
13 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
14 does not teach a method of delivering a message where the message envelope has
15 contents comprising data structures in which *each data structure identifies which
16 entity is intended to process the data structure* when that entity receives the
17 message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its
18 body *identifies* which entity is intended to *process* the data structure when that
19 entity receives the message envelope over the network. Accordingly, for at least
20 this reason, this claim is allowable.

21 **Claims 20-35** ultimately depend upon independent claim 19. As discussed
22 above, claim 19 is allowable.

23 In addition to its own merits, each of these dependent claims is allowable
24 for the same reasons that its base claim is allowable. Applicant requests that the
25

1 Office withdraw the rejection of each of these dependent claims because its base
2 claim is allowable.

3
4 **Claims 37-47**

5 **Claim 37** recites a method of parsing a message received by a receiving
6 entity over a network from a sending entity, the method comprising:

- 7
 - parsing a message envelope;
 - parsing contents of the message envelope, the contents comprising
8 data structures, each data structure *identifies which entity is*
9 *intended to process the data structure when that entity receives the*
10 *message envelope over the network.*

11 In making out the rejection of this claim, the Office makes the same
12 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
13 does not teach a method of parsing a message where the contents of the message
14 envelope comprise data structures in which *each data structure identifies which*
15 *entity is intended to process the data structure* when that entity receives the
16 message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its
17 body *identifies* which entity is intended to *process* the data structure when that
18 entity receives the message envelope over the network. Accordingly, for at least
19 this reason, this claim is allowable.

20 **Claims 38-47** ultimately depend upon independent claim 37. As discussed
21 above, claim 37 is allowable.

22 In addition to its own merits, each of these dependent claims is allowable
23 for the same reasons that its base claim is allowable. Applicant requests that the
24 Office withdraw the rejection of each of these dependent claims because its base
25 claim is allowable.

1
2 **Claim 49**

3 **Claim 49** recites a computer-readable storage medium having computer-
4 executable instructions that, when executed by a computer, performs a method of
5 formatting a message for exchange between entities on a network, the method
6 comprising:

- 7
 - generating a message envelope;
 - generating contents of the message envelope, the contents
8 comprising data structures, *each data structure identifies which*
9 *entity is intended to process the data structure when that entity*
10 *receives the message envelope over the network.*

11 In making out the rejection of this claim, the Office makes the same
12 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
13 does not teach a method in which the contents of a message envelope comprise
14 data structures where *each data structure identifies which entity is intended to*
15 *process the data structure* when that entity receives the message envelope over
16 the network. Rather, *neither* Fuisz's e-mail header nor its body *identifies* which
17 entity is intended to *process* the data structure when that entity *receives* the
18 message envelope over the network. Accordingly, for at least this reason, this
19 claim is allowable.
20

21 **Claim 50**

22 **Claim 50** recites a computer-readable storage medium having computer-
23 executable instructions that, when executed by a computer, performs a method of
24 delivering a message between entities on a network, the method comprising:
25

- transmitting a message envelope of a message from an origin entity to a destination entity via one or more intermediate entities on the network;
- the message envelope having contents comprising data structures, *each data structure identifies which entity is intended to process the data structure when that entity receives the message envelope over the network.*

In making out the rejection of this claim, the Office makes the same arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz does not teach a method of delivering a message in which the message envelope contents comprise data structures where *each data structure identifies which entity is intended to process the data structure* when that entity receives the message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its body *identifies* which entity is intended to *process* the data structure when that entity receives the message envelope over the network. Accordingly, for at least this reason, this claim is allowable.

Claim 51

Claim 51 recites a computer-readable storage medium having computer-executable instructions that, when executed by a computer, performs a method of parsing a message received by a receiving entity over a network from a sending entity, the method comprising:

- parsing a message envelope of a message;
- parsing contents of the message envelope, the contents comprising data structures, *each data structure identifies which entity is intended to process the data structure when that entity receives the message envelope over the network.*

In making out the rejection of this claim, the Office makes the same arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz

1 does not teach a method of parsing a message where the contents of the message
2 envelope comprise data structures in which *each data structure identifies which*
3 *entity is intended to process the data structure* when that entity receives the
4 message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its
5 body *identifies* which entity is intended to *process* the data structure when that
6 entity receives the message envelope over the network. Accordingly, for at least
7 this reason, this claim is allowable.

8 9 Claim 52

10 **Claim 52** recites a message exchange apparatus comprising:

- 11 • a processor;
- 12 • a message formatter executable on the processor to:
 - 13 ○ generate a message envelope of a message;
 - 14 ○ generate contents of the message envelope, the contents
15 comprising data structures, *each data structure identifies*
16 *which entity is intended to process the data structure when*
17 *that entity receives the message envelope over the network.*

18 In making out the rejection of this claim, the Office makes the same
19 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
20 does not teach a message exchange apparatus in which the contents of the message
21 envelope comprise data structures where *each data structure identifies which*
22 *entity is intended to process the data structure* when that entity receives the
23 message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its
24 body *identifies* which entity is intended to *process* the data structure when that
25 entity receives the message envelope over the network. Accordingly, for at least
this reason, this claim is allowable.

1
2 **Claim 53**

3 **Claim 53** recites a message exchange apparatus comprising:

- 4
- a processor;
 - a message deliverer executable on the processor to:
 - transmit a message envelope of a message from an origin entity to a destination entity via one or more intermediate entities on the network;
 - the message envelope having contents comprising data structures, *each data structure identifies which entity is intended to process the data structure when that entity receives the message envelope over the network.*
- 9

10 In making out the rejection of this claim, the Office makes the same
11 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
12 does not teach a message deliverer in which the message envelope contents
13 comprise data structures where *each data structure identifies which entity is*
14 *intended to process the data structure* when that entity receives the message
15 envelope over the network. Rather, *neither* Fuisz's e-mail header nor its body
16 *identifies* which entity is intended to *process* the data structure when that entity
17 receives the message envelope over the network. Accordingly, for at least this
18 reason, this claim is allowable.

19

20 **Claim 54**

21 **Claim 54** recites a message exchange apparatus comprising:

- 22
- a processor;
 - a message parser executable on the processor to:
 - parse a message envelope of a message;
 - parse contents of the message envelope, the contents comprising data structures, *each data structure identifies which entity is*
- 25

1 *intended to process the data structure when that entity receives*
2 *the message envelope over the network.*

3 In making out the rejection of this claim, the Office makes the same
4 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
5 does not teach a message exchange apparatus in which the message envelope
6 contents comprise data structures where *each data structure identifies which*
7 *entity is intended to process the data structure* when that entity receives the
8 message envelope over the network. Rather, *neither* Fuisz's e-mail header nor its
9 body *identifies* which entity is intended to *process* the data structure when that
10 entity receives the message envelope over the network. Accordingly, for at least
11 this reason, this claim is allowable.

12 **Claims 55-57**

13 **Claim 55** recites a message envelope generated in accordance with the
14 following acts:

- 15
- 16 • providing a sending entity in communication with a network of
17 entities;
 - 18 • generating contents of the message envelope of a message, the
19 contents comprising:
 - 20 • a *header data structure which identifies an intermediate entity as*
21 *that which is intended to process the header data structure* and
22 whether that intermediate entity must understand such data structure;
23 and
 - 24 • a *body data structure which identifies a destination entity as that*
25 *which is intended to process the body data structure.*

22 In making out the rejection of this claim, the Office makes the same
23 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
24 does not teach a message envelope having contents comprising a header data
25

1 structure which *identifies an intermediate entity as that which is intended to*
2 *process the header data structure*. Nor does Fuisz teach a message envelope
3 having contents comprising a body data structure which *identifies a destination*
4 *entity as that which is intended to process the body data structure*. In addition,
5 Lefebvre does not teach these features. Accordingly, for at least these reasons, this
6 claim is allowable.

7 **Claims 56-57** ultimately depend upon independent claim 55. As discussed
8 above, claim 55 is allowable.

9 In addition to its own merits, each of these dependent claims is allowable
10 for the same reasons that its base claim is allowable. Applicant requests that the
11 Office withdraw the rejection of each of these dependent claims because its base
12 claim is allowable.

13 14 **Claims 58-60**

15 **Claim 58** recites a modulated data signal having computer-executable
16 instructions embodied thereon comprising:

- 17
- 18 • a header data structure which *identifies* an intermediate entity, over a
19 network of entities, as that which is *intended to process the header*
20 *data structure* and whether that intermediate entity must understand
21 such data structure; and
 - 22 • a body data structure which *identifies* the destination entity as that
23 which is *intended to process the body data structure*.

24 In making out the rejection of this claim, the Office makes the same
25 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
does not teach a header data structure which *identifies an intermediate entity . . .*
as that which is intended to process the header data structure. Nor does Fuisz

1 teach a body data structure which *identifies the destination entity as that which is*
2 *intended to process the body data structure*. In addition, Lefebvre does not teach
3 these features. Accordingly, for at least these reasons, this claim is allowable.

4 **Claims 59-60** ultimately depend upon independent claim 58. As discussed
5 above, claim 58 is allowable.

6 In addition to its own merits, each of these dependent claims is allowable
7 for the same reasons that its base claim is allowable. Applicant requests that the
8 Office withdraw the rejection of each of these dependent claims because its base
9 claim is allowable.

10 **Claims 61-63**

11 **Claim 61** recites a computer-readable medium having a data structure
12 embodied thereon comprising:
13

- 14 • a header data-structure section which identifies an intermediate
15 entity, over a network of entities, as that which is *intended to*
16 *process* the header data-structure section and whether that
17 intermediate entity must understand such data-structure section; and
- a body data-structure section which identifies the destination entity
as that which is *intended to process* the body data-structure section.

18 In making out the rejection of this claim, the Office makes the same
19 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
20 does not teach a modulated data signal having computer-executable instructions
21 embodied thereon comprising a header data structure which *identifies an*
22 *intermediate entity . . . as that which is intended to process the header data*
23 *structure*. Nor does Fuisz teach a modulated data signal having computer-
24 executable instructions embodied thereon comprising a body data structure which
25 *identifies the destination entity as that which is intended to process the body data*

1 **structure.** In addition, Lefebvre does not teach these features. Accordingly, for at
2 least these reasons, this claim is allowable.

3 **Claims 62-63** ultimately depend upon independent claim 61. As discussed
4 above, claim 61 is allowable.

5 In addition to its own merits, each of these dependent claims is allowable
6 for the same reasons that its base claim is allowable. Applicant requests that the
7 Office withdraw the rejection of each of these dependent claims because its base
8 claim is allowable.

9
10 **Claims 64-79**

11 **Claim 64** recites a method of formatting a message for exchange between
12 entities on a network, the method comprising:

- 13
- 14 • generating a message envelope of a message, the message
comprising *at least one request by one entity on a network of
another entity on the network to perform a task;*
 - 15 • generating contents of the message envelope, the contents
comprising data structures, *each data structure identifies which
16 entity is intended to process the data structure* when that entity
17 receives the message envelope over the network.

18 In making out the rejection of this claim, the Office makes the same
19 arguments that it did when rejecting claim 1. For the reasons noted above, Fuisz
20 does not teach a message envelope having contents comprising data structures
21 where *each data structure identifies which entity is intended to process the data
structure* when that entity receives the message envelope over the network.
22 Rather, *neither* Fuisz's e-mail header nor its body *identifies* which entity is
23 intended to *process* the data structure when that entity receives the message
24 envelope over the network.
25

1 Furthermore, the Office fails to examine all elements of this claim. Instead,
2 the Office merely states that this claim contains similar limitations to that of claim
3 1 and is rejected on the same grounds as claim 1. Claim 1 does not recite
4 “generating a message envelope of a message, the message comprising *at least*
5 *one request by one entity on a network of another entity on the network to*
6 *perform a task*”, as does this claim. Applicant has thoroughly reviewed the Fuisz
7 reference and respectfully submits that Fuisz does not disclose this feature.

8 Accordingly, for at least these reasons, this claim is allowable.

9 **Claims 65-79** ultimately depend upon independent claim 61. As discussed
10 above, claim 61 is allowable.

11 In addition to its own merits, each of these dependent claims is allowable
12 for the same reasons that its base claim is allowable. Applicant requests that the
13 Office withdraw the rejection of each of these dependent claims because its base
14 claim is allowable.
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1 **Conclusion**

2 All pending claims are in condition for allowance. Applicant respectfully
3 requests reconsideration and prompt issuance of the application. If any issues
4 remain that prevent issuance of this application, the Office is urged to contact the
5 undersigned attorney before issuing a subsequent Action.
6

7 Respectfully Submitted,

8
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